

REMARKS

Claims 8-14 and 61-75 have been canceled without prejudice to continued prosecution. The specification has been amended to correct a typographical error. New claims 76-86 recite methods of treating patients that include administering a protein C or activated protein C polypeptide with a modified GLA domain and an anticoagulant agent, where the modified GLA domain comprises three amino acid substitutions at positions selected from the group consisting of residues 10, 11, 28, 32, and 33 of SEQ ID NO:1 or three amino acid substitutions at residues 11, 32, and 33. Support for new claims 76-86 can be found throughout the specification, including, for example, at page 5, lines 15-16, page 9, lines 18-20, and at page 11, lines 9-25. In new claims 76-86, the positions have been numbered to correspond with the actual position within SEQ ID NO:1. In the specification, positions 10, 11, 28, 32, and 33 of protein C are referred to as positions 11, 12, 29, 33, and 34 as amino acid positions were numbered according to factor IX. Protein C has one less amino acid (position 4), which was represented as a "-" in Table 1. Thus, actual position 10 of protein C was numbered as position 11 for ease of comparison among vitamin K-dependent polypeptides. See, page 9, lines 2-6 of the specification. The amino acid sequence set forth in SEQ ID NO:1 does not contain a "-" at position 4, so the numbering of positions within SEQ ID NO:1 corresponds with the actual positions of protein C. No new matter has been added. Applicant respectfully requests reconsideration and allowance of claims 76-86 in view of the following remarks.

Objection to Specification

The Examiner objected to the specification for failing to comply with the sequence rules. The Examiner cited to page 11, Table 1; page 12, Table 2; page 13, Table 3; page 14, Table 4; and page 39, lines 28-32 to page 40, lines 1-2 of the specification.

Applicant respectfully disagrees with the Examiner's objections. Sequence identifiers for the sequences in Table 1 (hC and bC) are set forth at page 10, line 32 and at page 11, line 1 of the specification. Sequence identifiers for the sequences in Table 2 (hVII and bVII) are set forth at page 12, lines 3-4 of the specification. The hIX and bIX sequences in Table 3 are identified at page 13, lines 20-21 of the specification. The hPS sequence in Table 4 is identified at page 14,

line 2 of the specification. Sequence identifiers for the sequences on page 39, line 28 through page 40, line 2 of the specification are identified at page 39, lines 20-26, of the specification. Thus, the specification is in compliance with the sequence rules. The Examiner is requested to withdraw the objection to the specification.

Objection to Claims

The Examiner objected to claims 8 and 73-75 and asserted that "Gla" should be written as "GLA." Claims 8 and 73-75 have been canceled without prejudice.

Rejection under 35 U.S.C. §112, second paragraph

The Examiner rejected claims 9-14 under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner asserted that there was "no reference point for the amino acid position at which the substitution is made." The Examiner suggested amending the claim to only refer to substitutions in protein C sequences. Claims 9-14 have been canceled without prejudice to continued prosecution.

Rejection under 35 U.S.C. §112, first paragraph

The Examiner rejected claims 8, 61-63 and 75 under 35 U.S.C. §112, first paragraph, for lack of enablement. The Examiner asserted that the specification does not address making substitutions at any amino acid position within the GLA domain and that the claims, which fail to recite any limitations of what positions may be substituted and what type of amino acids may be substituted, are broader than the enabling description.

Claims 8, 61-63, and 75 have been canceled without prejudice to continued prosecution. New claims 76-85 relate to methods of treatment using an anticoagulant and a protein C or activated protein C polypeptide having a modified GLA domain. The modified GLA domain can have three amino acid substitutions at positions selected from the group consisting of residues 10, 11, 28, 32, and 33 of SEQ ID NO: 1 or three amino acid substitutions at residues 11, 32, and 33 of SEQ ID NO:1. New claim 86 relates to a method of treating a patient in need thereof by administering an effective amount of aspirin and an activated protein C polypeptide with a modified GLA domain, the modified GLA domain including three amino acid

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substitutions at residues 11, 32, and 33 of SEQ ID NO:1, wherein residue 11 of SEQ ID NO:1 is glycine, residue 32 of SEQ ID NO:1 is glutamic acid, and residue 33 of SEQ ID NO:1 is aspartic acid. The specification enables one of ordinary skill in the art to practice the methods of claims 76-86. The Examiner is requested to withdraw the rejection under 35 U.S.C. §112, first paragraph.

Duplicate Claims

The Examiner objected to claims 67-72 as being a substantial duplicate of claims 61-66. Claims 67-72 have been canceled without prejudice: